

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1. (previously presented):** An anti-reflection film having

reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors, said anti-reflection film comprising:

a structure of 6 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness,

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm.
- 2. (currently amended):** A self-light emitting display medium, comprising:

a self-light emitting display having light emission maxima in respective three wavelength regions of three primary colors; and

an anti-reflection film applied on a front surface of a display screen of said self-light emitting display and having reflectance minima in at least three wavelength regions containing said respective three wavelength regions of said three primary colors,

wherein said anti-reflection film comprises: a structure of 6 or 7 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness, and

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm, or a first layer having an index of refraction of 1.42 and a film thickness of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00 nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of refraction of 1.77 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm, or

said structure of said 7 layers of thin films comprises a first layer having an index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of 1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a film

thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness 93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.

3. (currently amended): A liquid crystal display medium, comprising:

a liquid crystal display;

an anti-reflection film applied on a front surface of a display screen of said liquid crystal display and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors; and

one or more three band fluorescent lamps as a backlight source having light emission maxima in said respective three wavelength regions of said three primary colors,

wherein said anti-reflection film comprises: a structure of 6 or 7 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness, and

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm, or a first layer having an index of refraction of 1.42 and a film thickness of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00

nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of refraction of 1.77 and film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm, or

said structure of said 7 layers of thin films comprises a first layer having an index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of 1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a film thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness of 93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.

4. (currently amended): A light reflective display medium, comprising: a reflective display; and

an anti-reflection film applied on a front surface of a display screen of said reflective display and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors,

wherein said anti-reflection film comprises: a structure of 6 or 7 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness, and

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of

refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm, or a first layer having an index of refraction of 1.42 and a film thickness of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00 nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of refraction of 1.77 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm, or

said structure of said 7 layers of thin films comprises a first layer having an index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of 1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a film thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness of 93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.

5. (canceled).

6. (previously presented): An organic EL display device of self-light emitting type, comprising:

an organic EL display of the self-light emitting type, including a light emitting layer of organic compounds having light emission maxima in respective three wavelength regions of three primary colors; and

an anti-reflection film applied on a front surface of a display screen of said organic EL display and having reflectance minima in at least three wavelength regions containing said respective three wavelength regions of said three primary colors.

7-8. (canceled).

9. (currently amended): A liquid crystal monitor using an organic EL device, comprising:

a liquid crystal display;

a display screen of said liquid crystal display;

a an anti-reflection film applied on a front surface of said display screen and having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors; and

an organic EL device as a backlight comprising a light emitting layer having light emission maxima in said respective three wavelength regions of said three primary colors,

wherein said anti-reflection film comprises: a structure of 6 or 7 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness.
and

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm, or a first layer having an index of refraction of 1.42 and a film thickness of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00 nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of 1.77 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm, or

said structure of said 7 layers of thin films comprises a first layer having an index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of 1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a film thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness of 93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.

10. (previously presented): The anti-reflection film according to claim 1, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

11. (previously presented): The anti-reflection film according to claim 1, wherein said respective three wavelength regions of said three primary colors are 450 ± 10 nm, 540 ± 10 nm and 610 ± 10 nm, respectively.

12-13. (canceled).

14. (previously presented): An anti-reflection film having reflectance minima in at least three wavelength regions containing respective three wavelength regions of three primary colors, said anti-reflection film comprising:

a structure of 6 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness,

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction of 1.42 and a film thickness of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00 nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of refraction of 1.77 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.

15. (previously presented): An anti-reflection film, having
reflectance minima in at least three wavelength regions containing respective three
wavelength regions of three primary colors, said anti-reflection film comprising:

a structure of 7 layers of thin films which are different from each other in at least one of
an index of refraction and film thickness,

wherein said structure of said 7 layers of thin films comprises a first layer having an
index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of
refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of
1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a
film thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film
thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness of
93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00
nm.

16. (previously presented): The self-light emitting display medium according to claim 2,
wherein said self-light emitting display comprises a cathode ray tube display.

17. (previously presented): The liquid crystal display medium according to claim 3,
wherein said liquid crystal display comprises a transmission liquid crystal display and a
translucent liquid crystal display.

18. (canceled).

19. (previously presented): The light reflective display medium according to claim 4, wherein said reflective display comprises a reflective liquid crystal display.

20. (previously presented): The light reflective display medium according to claim 19, wherein said reflective liquid crystal display comprises three color filters of red, green and blue in said display screen, said three color filters having light transmittance maxima in said respective three wavelength regions of said three primary colors.

21. (previously presented): The organic EL display device according to claim 6, wherein said organic EL display further comprises a substrate; a transparent electrode; and a back electrode, and wherein said transparent electrode, said light emitting layer of organic compounds and said back electrode are laminated in order on said substrate.

22. (previously presented): The organic EL display device according to claim 6, wherein said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

23. (previously presented): The organic EL display device according to claim 6, wherein said respective three wavelength regions of said three primary colors are 450 ± 10 nm, 540 ± 10 nm and 610 ± 10 nm, respectively.

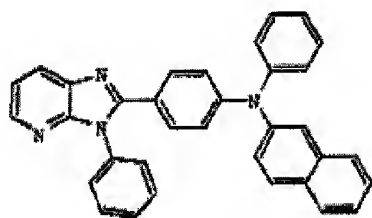
24. (previously presented): The organic EL display device according to claim 21, wherein a first light emitting material displaying blue color light emission, a second light emitting material displaying green color light emission and a third light emitting material displaying red color light emission are used in said light emitting layer of said organic compounds, and said first, second and third light emitting materials are singlet light emitting materials.

25. (previously presented): The organic EL display device according to claim 21, wherein

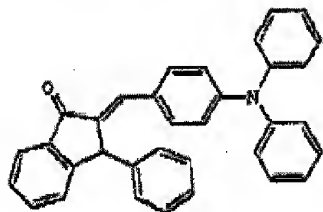
said first light emitting material has an organic compound shown by the following chemical formula (1) that displays blue color fluorescent light emission, having a maximum wavelength of light emission of 443 nm,

said second light emitting material has an organic compound shown by the following chemical formula (2) that displays green color fluorescent light emission, having a maximum wavelength of light emission at 547 nm, and

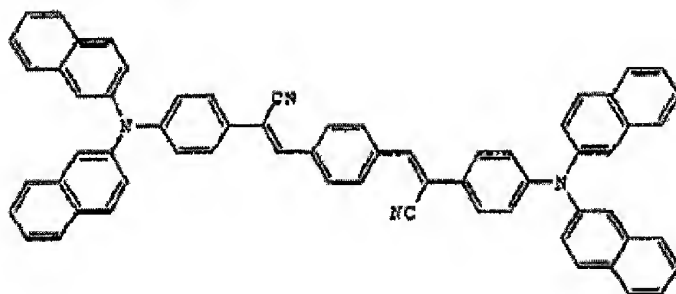
said third light emitting material has an organic compound shown by the following chemical formula (3) that displays red color fluorescent light emission, having a maximum wavelength of light emission at 615 nm,



(1),



(2), and



(3).

26-27. (canceled).

28. (previously presented): The liquid crystal monitor according to claim 9, wherein said liquid crystal display comprises a transmission liquid crystal display, or a translucent liquid crystal display.

29. (previously presented): The anti-reflection film according to claim 14, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

30. (previously presented): The anti-reflection film according to claim 14, where said respective three wavelength regions of said three primary colors are 450 ± 10 nm, 540 ± 10 nm and 610 ± 10 nm, respectively.

31. (previously presented): The anti-reflection film according to claim 15, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

32. (previously presented): The anti-reflection film according to claim 15, where said respective three wavelength regions of said three primary colors are 450 ± 10 nm, 540 ± 10 nm and 610 ± 10 nm, respectively.

33. (previously presented): The self-light emitting display medium according to claim 2, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

34.(previously presented): The liquid crystal display medium according to claim 3, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

35. (previously presented): The light reflective display medium according to claim 4, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

36. (previously presented): The liquid crystal monitor according to claim 9, where said respective three wavelength regions of said three primary colors are 450 ± 20 nm, 540 ± 20 nm and 610 ± 20 nm, respectively.

37. (new): The organic EL display device according to claim 6, wherein said anti-reflection film comprises: a structure of 6 or 7 layers of thin films which are different from each other in at least one of an index of refraction and a film thickness, and

wherein said structure of said 6 layers of thin films comprises a first layer having an index of refraction 1.40 and a film thickness of 93.10 nm, a second layer having an index of refraction of 1.46 and a film thickness of 94.40 nm, a third layer having an index of refraction of 1.78 and a film thickness of 95.40 nm, a fourth layer having an index of refraction of 1.81 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.90 and a film thickness of 92.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 90.90 nm, or a first layer having an index of refraction of 1.42 and a film thickness

Amendment under 37 C.F.R. § 1.116
Application No. 10/660,600

Q75429

of 91.30 nm, a second layer having an index of refraction of 1.45 and a film thickness of 92.00 nm, a third layer having an index of refraction of 1.70 and a film thickness of 97.30 nm, a fourth layer having an index of refraction of 1.77 and a film thickness of 92.30 nm, a fifth layer having an index of refraction of 1.88 and a film thickness of 93.90 nm, and a sixth layer having an index of refraction of 1.40 and a film thickness of 91.00 nm, or

said structure of said 7 layers of thin films comprises a first layer having an index of refraction of 1.64 and a film thickness of 92.50 nm, a second layer having an index of refraction of 1.47 and a film thickness of 90.60 nm, a third layer having an index of refraction of 1.40 and a film thickness of 91.20 nm, a fourth layer having an index of refraction of 1.66 and a film thickness of 99.40 nm, a fifth layer having an index of refraction of 1.74 and a film thickness of 95.80 nm, a sixth layer having an index of refraction of 1.89 and a film thickness of 93.20 nm, and a seventh layer having an index of refraction of 1.40 and a film thickness of 91.00 nm.